



SAINT LOUIS AUDUBON SOCIETY

BULLETIN

Winter 1980-1981

EAGLES-EAGLES-EAGLES

Again the St. Louis Audubon Society has been asked to participate in the National Mississippi Valley Winter Bald Eagle Count. This will be the 16th time we have taken part.

The date is SATURDAY, JANUARY 17th and the area is from Winfield Dam north to Saverton.

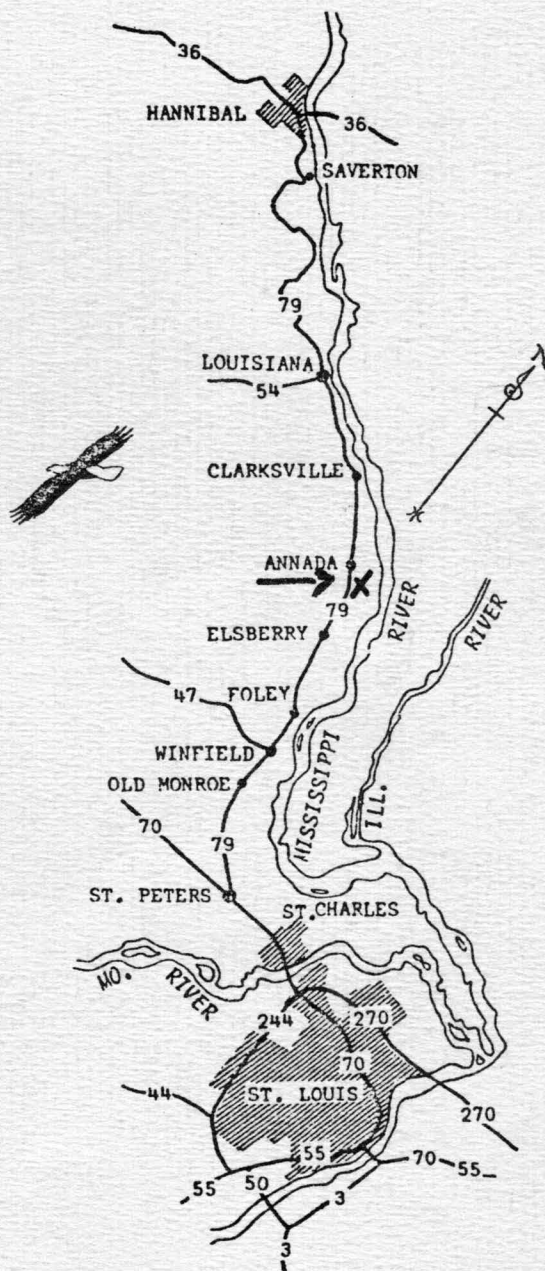
Last year 150 'birders' braved the elements on January 12th, and recorded a great number of eagles, many of which were immatures.

Again we will have the able leadership of McCune Dudley and experienced leaders in the field of ornithology. They will map the area and different groups will cover specified areas.

Meet at Clarence Cannon Refuge at 8:30 a.m., a drive of about 1 hour from Clayton. Follow interstate 70 to St. Peters, then north on 79. Turn right at Annada (see map), and follow signs. Coffee, doughnuts and a warm welcome will await you. You'll like the new meeting place!

This is a must trip and one for the inexperienced as well as the seasoned birder. Children are most welcome. Dress warmly and bring lunch.

For further information call the St. Louis Audubon Society at 965-8642 or 771.2731.



GOOD BIRDING

During 1980 as a whole, probably the most significant trend in birding was the increased interest and enthusiasm. Also, the number of young people showing an increased interest in environmental projects was noted.

What lies ahead for birders during the eighties, it's hard to say, particularly in light on the ongoing gasoline situation. The seventies were years of travel as many birders crisscrossed our country looking for birds and many ventured beyond our borders in their pursuit. But probably most importantly, during the last ten years more young people than ever before have become interested, and more intense and serious study in the field of natural resources is being done.

To help you find "that" bird during your travels a RARE BIRD ALERT has been compiled (but not guaranteed by your editor).

Philadelphia	215-567-2473	Cleveland	216-696-8186
New Jersey	201-766-2661	Columbus, Ohio	614-299-7833
New York City	212-832-6523	Detroit-Windsor	313-792-7140
Washington, D.C.	301-652-1088	Chicago	312-283-2144
Western Pa.	412-963-6104	Central Illinois	212-785-1083
Boston, Mass.	617-259-8805	Minnesota	612-544-8315
Springfield, Mass.	413-566-3590	Bellingham, Wash.	206-455-9722
Buffalo, NY.	716-896-1271	Victoria, B.C.	604-838-0211
Vermont	802-453-2779	San Francisco	415-843-2211
Atlanta	404-934-4711	Los Angeles	213-874-1318

If you are in the St. Louis area call 314-965-8642 and we will help you--with the assistance of our many experts in the area--solve your birding problems. If you have not seen the European Tree Sparrow, this is the place!



"It's a life bird for me too, you know"

THE HERITAGE OF OUR LAKES

Water-filled basins are fragile, evanescent features of our landscape. Most have a life expectancy of only a few thousand years. Very few of our present lakes have existed for as long as a million years, and even this is a relatively short time geologically.

The word limnology means the study of lakes, streams and rivers. The present time in earth history is a good time to be a limnologist and North America is a good place for a limnologist to be. The contiguous 48 states are estimated to have more than 100,000 lakes. Alaska must have a million and Canada has several million. Most of these lakes resulted from the activities of glaciers, and because the last ice age ended only 10,000 years ago, most of the lakes formed during the latter part of that period still survive.

Life in a lake is supported by the chemical energy in the organic matter most of which comes from photosynthesis by algae and higher aquatic plants. The qualities of these plants are regulated by the quantities of essential nutrients that get into the lake, chiefly from its watershed or catchment area. A watershed is like a big funnel, with the lake occupying the stem. The conditions of the watershed intimately affect the nature of the lake.

Lakes tend to accumulate nutrients and other materials. The total of the inputs is greater than that of the outputs. The difference is the amount being recycled through the organisms in the lake and the amount incorporated in the sediments.

Most organisms require molecular oxygen for respiration. Dead organic matter also has an oxygen demand through the activities of the organisms, chiefly bacteria, that use this organic matter and in the process release the contained phosphorus, nitrogen and other elements in simple form that can be utilized by plants. The nutrients can be recycled many times, but the chemical energy only once.

Warm water is lighter than cold water and tends to remain at the top of a lake, and so a two-layer system results. The upper layer because of light for photosynthesis and circulation by wind seldom experiences depletion of oxygen. The lower layer is cut off from contact with the atmosphere and does not have sufficient light. The oxygen used by bacteria and animals cannot be replaced and thus the oxygen deficit becomes progressively more severe. The amount of oxygen available is controlled by the volume of deep water and becomes progressively reduced over time by the accumulation of sediments--a thoroughly natural process that helps bring about the extinction of lakes.

Paleolimnology is an attempt to uncover the history of a lake and the events that shaped its development. The sediments of a lake accumulate in chronological sequence, with the oldest at the bottom. A sensitive reading of this record can yield amazingly detailed insight into the history of a lake and its watershed.

Unproductive lakes are said to be oligotrophic and productive lakes eutrophic, with the process of increasing production being referred to as eutrophication. Before paleolimnology, limnologists believed that lakes began their existance in an oligotrophic condition and became eutrophic over time. Now it is known that this is not true.

The early impacts of man occurred at a time when the population pressure on the systems was much less than now. Also, stresses were more or less discrete events from which the lake could recover. The situation is different today with larger populations and the wastes they generate. Many of our lakes are being subjected to great pressure.

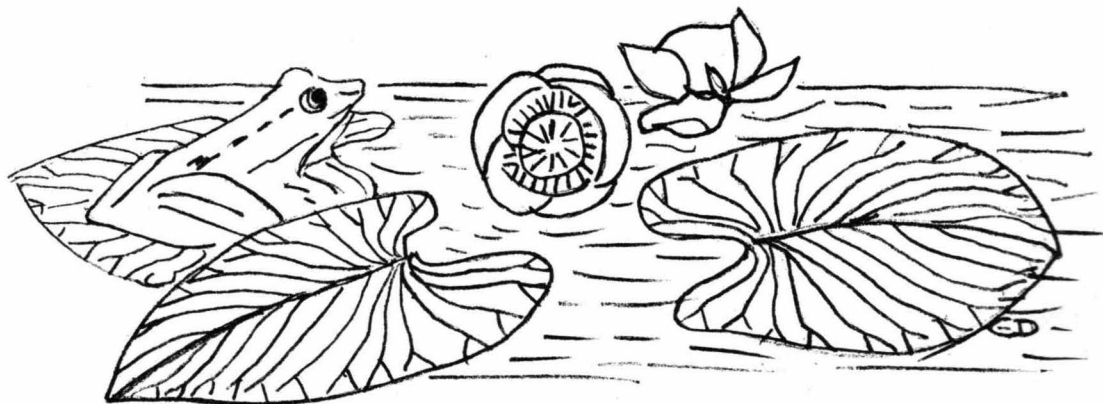
Perhaps through our willful refusal to consider long-term consequences in favor of short term economic gains, we have generated a large environmental debt. Quoting Lee Talbot of the World Wildlife Fund, "We haven't inherited the earth from our parents, We have borrowed it from our children."

Through our understanding of limnology we know that the two major causes of our problems are phosphorus and sediments, both of which derive chiefly from the watershed. Other problems are beginning to be recognized. One is toxic substances and another problem is acid rain. Many limnologists believe acid rain is the number one problem.

What is the heritage that we will pass on to our children? What is the compound interest rate on our borrowing against the future? Can we hope to contain this debt, much less pay it off or reduce it? It is difficult to be optimistic when the answers are clear. We must continue to work to combat the assaults to the global ecosystem. If this is not done a very miserable heritage will be passed on to the coming generation.

Art- Edgar Denison

Source material-D. G. Frey



Audubon Wildlife Films

The Ethical Society of St. Louis
9001 Clayton Road
8:15 P.M.



Friday
January 16, 1981

Jeffery Boswall
"Wildlife Safari to Ethiopia"

WILDLIFE SAFARI to ETHIOPIA is a different African wildlife film. You'll see no elephants, no giraffes, no rhinos, no lions and no cheetas or leopards. Instead you will see Ethiopian specialities like the Gelada Baboon, the Simien Fox, and the Walia Ibex. Also Somali Wild Asses, Carmine Bee-eaters riding on the backs of stately bustards, Egyptian Vultures using stones as tools to break open ostrich eggs.

You will marvel at Guereza Monkeys "flying" through the tree tops, and wild Spotted Hyenas that take bones directly from Mr. Boswall's hand. You'll know you are having a truly personal wildlife safari in Ethiopia.

This exceptional film is the product of a six-month journey through Ethiopia beginning in what is one of the hottest areas on earth, the Danakil Depression, 320 feet below sea level, where temperatures of 134° have been recorded, and culminating on the top of High Simien, 15,188 feet above the sea.

This little known country has a greater range of habitats and a greater variety of plants and animals than any other country in Africa. As Jeffery Boswall climbs from one plateau to another, he passes through the different terrains; lifeless, baking salt deserts, islands of fossilized coral in the Red Sea, the savannahs of the Awash National Park, the gorge of the Blue Nile, and the great 1,000 square mile Lake Tana, source of the Nile, the Abyssinian tablelands where stands Addis Ababa, the nation's capital, and finally the most spectacular mountain scenery in the world.

For WILDLIFE SAFARI TO ETHIOPIA Mr. Boswall was summoned to Addis Ababa where he received a gold medal from the Emperor Haile Selassie. Jeffery Boswall is an Englishman employed as a television producer of the B.B.C.'s Natural History Unit at Bristol. He is the joint author of "The Peterson Field Guide to the Bird Songs---Britian and Europe". He is a Scientific Fellow of the Zoological Society of London and an investigatory naturalist at heart.

We will welcome you to this Wildlife Film and also welcome children and young people. You are welcome to stay after the film showing and visit with Mr. Boswall.



Friday
February 20, 1981

Richard Kern
"Hidden World of the
Big Cypress Swamp"

In 1972 Congress voted to purchase approximately 900 square miles of wetlands adjacent to the Everglades National Park in southern Florida. A swamp through three seasons of the year, and, in parts, a dry land prone to fires during the winter, Big Cypress National Fresh Water Preserve is a wet prairie of grasslands where the pond cypress form domed stands over much of the swamp and areas of higher elevation are covered with pine woods and cabbage palm hammocks.

These fresh water swamps and marshes are fragile, temporary catch basins of life, the habitat of a populous and diversified wildlife which has perhaps more hidden members than visible ones.

With his second major wildlife film on the Florida wetlands, Richard Kern has chosen to concentrate on this hidden world of the swamps, and often microscopic world of survival, so much of it beneath the foot-deep waters. The resulting work is a unique cinematic forage, a "microsafari" into the Big Cypress Swamp.

Copepods, rotifers, hydras and water mites are several of the minute species of wildlife to be found in a handful of swamp water. Myriad fish, shrimp, crayfish, water beetles, and water scorpions incorporate oxygen into their diverse systems via gills, air tubes or air bubbles gently carried below the still water's surface. The bladderwort, a carnivorous plant feeds on infinitesimal creatures and the predatory controllers of the fish population are the giant water bugs, snapping turtles and water spiders.

The film includes a sequence on the nesting of the rare and endangered Everglade Kite, a hawk which feeds on a single species of fresh water snail found in the Big Cypress Swamp and the nearby Everglades. It is perhaps the most dramatic illustration of the dependence on those hidden minute creatures of the swamps and marshes which has evolved within the larger animals of Florida's wetlands.

This is the last film of the 1980-81 Wildlife Film Series. This series is a gift of the Saint Louis Audubon Society to the people of this area. It is an expensive gift as we pay \$200 for the rental of the auditorium for each film, and pay charges of over \$1,500 to National Audubon Society. We will continue this series if you so desire.

Please let us know if you enjoy the series, and you wish it offered in the coming year. If you have suggestions for changes we would be happy to hear them. The activities of the Society are patterned on your wishes. Many Chapters charge an admission fee for the Wildlife Series. Do you believe your Society should make such a charge, and if so what amount? We welcome your comments.

WINTER BIRD FEEDING

Jack VanBenthuyssen, President
St. Louis Audubon Society

Birds are one of nature's many symbols of beauty which will endure the age. Birds are beautiful, not only in the sense of plumage, but also in their vibrant, static and dynamic manner. These small feathered creatures are pulsated with energy, surcharged with charm and their everlasting beauty every hour of the day, every season of the year - as long as they can live under the proper living conditions - one of those being the necessity of food and another, the protection from the cold.

If birds were not properly protected by the few of us, it might not mean much. But if everyone took that attitude in bird feeding it would be disastrous. It has often been stated that, if some catastrophe should wipe out entirely the bird life of the continent, we would starve to death before man could combat through sprays and mechanical means the insect hosts, which having no enemies, would destroy the crops. Ornithologists say that is too sweeping a statement, and entomologists say that "parasitic insects would develop and prevent any major catastrophe", but, nevertheless, it is almost impossible for us to realize how much birds do keep down the ravages of insects and rodents.

Because birds are intensely active, their hearts beat every rapidly. In order to keep up their energy they must eat often and plentifully. Our part in bird feeding, although it is comparatively small, plays an important part. Suppose one were to induce a chickadee to spend the winter at a feeder, it has been estimated that this one chickadee in turn would destroy over 140,000 eggs of the cankerworm moth, and if one were to induce a cardinal (or any other seed eating bird to a feeding tray) the bird would return the favor later in the year by destroying many weed seeds. It has been estimated that in the State of Iowa alone, the tree sparrows eat over 800 tons of weed seeds annually which saves the farmers about \$10,000,000 per year.

Granted that birds bring to the garden the joy of life and movement, and to it also, through their destruction of insect pests, a greater beauty of flower, fruit and foliage; it then follows that we must want to do all we can to insure their presence. This can be done easily for birds, whether they are insect or seed eaters or dependent on vegetation for their existence. All we have to do is plant trees and shrubs which are not only ornamental, but which will be of threefold value to the birds. That is, they must furnish flowers and fruit for the primary allure of food, and foliage both for protection from storms, to afford cover for concealment and also for nesting and pasturage for insects the birds need for food.

It is true that all summer birds have a bountiful larder, but it is also true that whatever food we offer them winter or summer is a supplement to their natural diet. A chickadee will often leave a lump of suet and soon be busily inspecting a twig, attacking it from every angle. Considering their numbers, the winter birds do more good in the garden than those in the summer. It is only in the winter when nature is at her resting point that the hungry woodpeckers are busy drilling out grubs and creepers, nuthatches and kinglets are busy destroying millions of insects eggs.

There are many who say that it is pure sentiment on our part to want to see the birds near us and feed them. But in this case the sentimentality is just. Of course, the chickadees and snow buntings are symbolical of and enjoy snow and ice--but who wasn't touched by seeing a song sparrow or a junco standing on first one foot and then the other to keep warm. Many birds can endure great cold if only there is a sufficient food supply. Birds do feel the cold, but can defy the frost if only the little furnaces hidden beneath their feathers are kept continually stroked. It is perfectly all right to feed the birds all winter for many of them, because of their confidence developed throughout winter's cold months, may be very likely to stay with us when we equally need them in the summer. But it is important to keep a continuous supply at your feeding station. Place the food on the tray at night after the birds have gone to roost for it is most likely they will arise before you do.

All feeding devices should be set up early in the fall for several reasons. One, so that the feeder may weather and the birds become accustomed to the location, and two, so that early feeding may induce migrant birds to winter about your feeder.

There are many types of feeders that can be built or purchased. Dr. Frank Chapman describes a rustic feeding shelf that fits very unobtrusively into the garden scene. He recommends, instead of the usual flat tray, hollowed out limbs with the bark left on. Two such hollow troughs are nailed at least four or five feet apart on a post, while a large hollowed out slab is fastened over the top for a roof. The base of the post may be protected from cats by a funnel shaped tin, or by being bound with barbed wire. Holes may be bored on the upper part of the post and suet forced into them.

If you desire to bring birds nearer to your window, a trolley feeder may be used. This roofed feeder runs on a wire attached to a window sill at one end, and to a post or shrubbery at the other end. This easily moved tray may be brought a little nearer the house each day. Move it when the birds are not feeding. Foot by foot this distance may be lessened until at last the feeder is just outside the window.

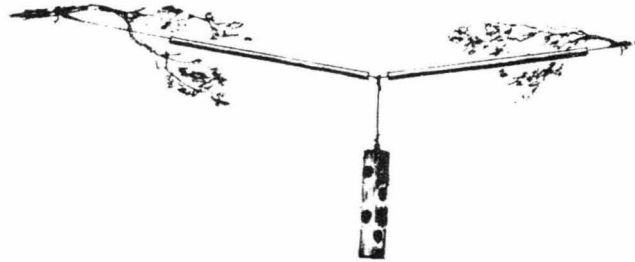
Whatever type of feeder or shelter is made or bought it should have a roof for protection against the elements and to prevent the grain from souring; and protection from cats such as a funnel guard or barbed-wire. It is also advisable to drill small holes in the feeder for drainage in case the rain blows in.

Grit should be supplied in some form inasmuch as when the ground is covered with snow it is extremely difficult for birds to find grit. Also, adequate water is very important for the winter feeding birds.

Many birds may visit your winter cafeteria such as: song sparrows, white breasted nuthatches, chickadees, hairy and downy woodpeckers, blue jays, purple finches, cedar waxwings, goldfinches, siskins, tree sparrows, white throated sparrows, brown creepers, golden and ruby crowned kinglets,

and the two weaver finches, the English and European tree sparrows. More rarely seen are red-breasted nuthatch, carolina wrens, red-headed woodpecker, yellow bellied sapsucker, quail, myrtle warbler, winter wrens. Even sparrow hawks have been known to visit feeders.

It is interesting to keep a list of the birds visiting your feeders, and winter feeding of birds will give hours of pleasure, not only to the birds, but to you.



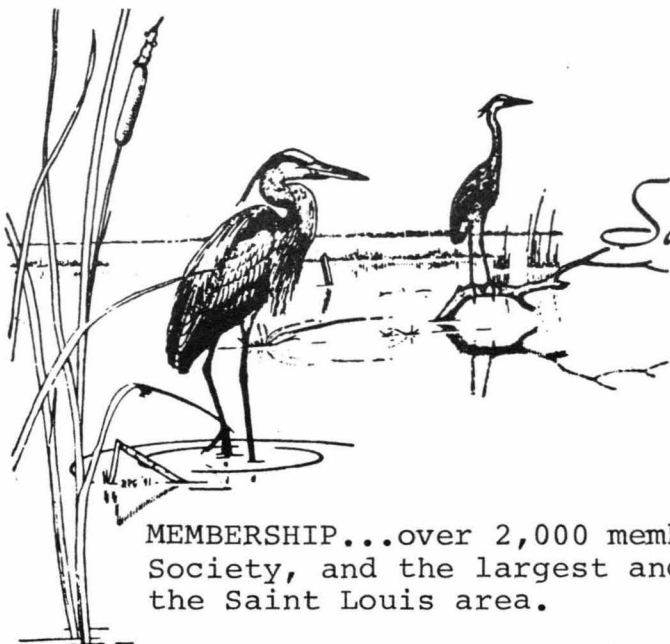
"MAGIC MIX" For Insect Eating Birds

In a 2 quart jar or bowl, put 2 cups melted fat (lard, bacon grease or Crisco); the reason for melting the fat is so you can mix it with the following:

- 1 cup peanut butter*
- 1/2 cup Karo corn syrup
- 1 cup oatmeal
- 4 cups cornmeal or

(enough to make it the consistency to stuff into holes of feeder)

To teach birds to eat this for the first time, place in small pieces on top of feeder in plain sight. * Never feed pernut butter to birds without mixing with cornmeal, oatmeal, etc., as it has been known to stick into the throats of small birds and choke them to death.



Saint Louis Audubon Society

CONNIE HATH, *Executive Director*

2109 BRIARGATE LANE

ST. LOUIS, MO 63122

MEMBERSHIP...over 2,000 members. It is a chapter of National Audubon Society, and the largest and oldest conservation organization in the Saint Louis area.

DUES...individual membership, \$20; family membership, \$25. Joining the Saint Louis Audubon Society includes a joint membership with National Audubon. Subscription to the St. Louis Audubon Bulletin is \$8.

MAGAZINES and BULLETINS...members receive the bi-monthly AUDUBON MAGAZINE which is most informative on the general subject of conservation of natural resources and contains the most beautiful nature pictures published. Members also receive the St. Louis Audubon Society BULLETIN, a bi-monthly publication, and all special mailings. The BULLETIN contains articles of local interest, such as pending legislation, hazardous waste, where to look for birds, who to call about nature walks and coming events.

BIRD and NATURE WALKS...the well-known Forest Park walks on the last two Sundays in April and the first two Sundays in May; the annual spring Bird Round-up; the Christmas bird count; the Annual Mississippi Valley Bald Eagle Count. We have participated in this important count for over 15 years.

SANCTUARY...The Society is in the process of obtaining a nature sanctuary. It will be close to St. Louis, and nature classes will be conducted on site for experienced and inexperienced students.

NATURE PHOTOGRAPHY SECTION...this group meets monthly October through May (no meeting in January). Slide critiques, special events, slide shows, photography walks and special trips are offered.

ST. LOUIS AUDUBON TOURS...personally conducted tours that have no equal and are not offered by any travel agency. Trips have been made to Mingo National Wildlife Refuge, the Missouri Everglades, Squaw Creek, Grand Island, Nebraska and Merida Yucatan. Trips to Mingo and Merida Yucatan are offered again this year. These tours are offered members and friends at cost plus a small donation to St. Louis Audubon.

AUDUBON WILDLIFE FILM SERIES...a series of 5 Audubon wildlife films given at the Ethical Society, 9001 Clayton Road. This series gives the community enrichment through the best in full color presentations of the world of nature. They are personally narrated by outstanding photographer-naturalists. Programs other than the film series are also offered.

SCHOLARSHIPS...each year the St. Louis Audubon Society awards several scholarships to Audubon Summer Camps located in Maine, Wyoming, Wisconsin and Connecticut. Applications should be made to St. Louis Audubon Society, 2109 Briargate Lane, St. Louis, MO. 63122.

PROJECT SOAR...this project, Save Our American Raptors, is a far-reaching and on-going program of great ecological importance. It is maintained by your contributions which are tax deductible.

GIFTS, MEMORIALS and BEQUESTS...you may give funds for a summer scholarship in the name of a friend or loved one, contribute to the Wildlife Film Fund or the Sanctuary Fund. All contributions are tax deductible. It would be impossible to successfully carry out the work of the Society without bequests and gifts. Please remember the St. Louis Audubon Society in your will. Information regarding this is available. It is your thoughtfulness that makes it possible to strive for our ideals and reach our goals.

WE BELIEVE...all growing things need earth, air and water. The St. Louis Audubon Society works to protect all three. Your assistance is the way to save the natural world that gives life to man and all living things. PLEASE HELP.

WE WELCOME...you to membership in the Saint Louis Audubon Society. Tear off the bottom of this page and mail with your check. Be sure to mail to the St. Louis address or our Society will receive no credit for your membership.

NAME _____

ADDRESS _____

STATE and ZIP _____

_____ \$20 individual

CHAPTER CHOICE #2602

_____ \$25 family

Mail to: ST. LOUIS AUDUBON SOCIETY
2109 Briargate Lane
St. Louis, MO. 63122



A VERY SPECIAL INVITATION

The St. Louis Audubon Society
INTERNATIONAL ADVENTURE to
Merida, Yucatan, March 17,
1981. All expense tour of
six days and five nights.
RESERVATIONS NOW!

INTERNATIONAL ADVENTURE

MERIDA YUCATAN

- Day 1 You will be met at the modern Merida, Yucatan airport and assisted through customs. From there you will be escorted to the Hacienda Inn. A cocktail party will be held around the Inn's lovely tropical pool in the early evening.
- Day 2 You will be awakened early for breakfast and then driven to the magnificent Mayan ruins at Chichen-Itza, the largest and best preserved monument to a lost civilization. You will see many species of birds, perhaps the Cotinga, black and white owl, the aplomado falcon, or a rose-throated tanager. Lunch will be served at the Hotel Mayaland. Return to the Hacienda Inn for dinner.
- Day 3 Depart early for a 25 mile drive through the rural countryside with interesting sights and much birdlife, and perhaps native orchids. Return to the Hacienda Inn for lunch, a dip in the pool and a siesta (which you will appreciate). Later in the afternoon you will explore the mysterious ruins at Dzibilchaltun. This is a photographer's delight. Back to the Inn for another swim and dinner.
- Day 4 Possibly the highlight of the trip for birders is the early morning ride to Celestun on the Gulf coast. Guides will take you to the lower end of the great mangrove swamp where you will see thousands of flamingos and many shore birds. Return to the Inn for lunch and to relax. The afternoon will be devoted to a tour of Merida's colorful homes and gardens--some of Spanish colonial vintage. This will be a 'first' on our Merida Tours. Return to the Inn for siesta... to fortify yourselves for a Night On The Town. You will be taken to the Tulapanes, famed for its grotto and excellent stage show. Here you will see the traditional Mayan dances, including the spectacular Deer Dance, with the performers in colorful costumes.

Day 5 This is a free morning for you to do as you wish; visit the archeological museum or shop in the local markets. We will provide transportation. In the afternoon you will explore the picturesque pyramids of Uxmal and have an opportunity for more birding in the lush gardens of the Hacienda Uxmal. You will dine here in the evening and at dusk witness the spectacular sound and sight show at Uxmal.

Day 6 A farewell breakfast and depart for the United States.

TRIP FEE: The complete ground package is \$500.00 plus a \$50.00 tax deductible contribution to the St. Louis Audubon Society. This includes everything but air fare, personal purchases, liquor and gratuities. This fee is based on double occupancy. An additional fee is required for single rooms. We will handle the airline reservations in order to get the lowest group rate possible. All reservations must be completed and returned to us with check 40 days prior to departure. It is important that we purchase airline tickets as quickly as possible in order to avoid another increase!

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MERIDA RESERVATION BLANK

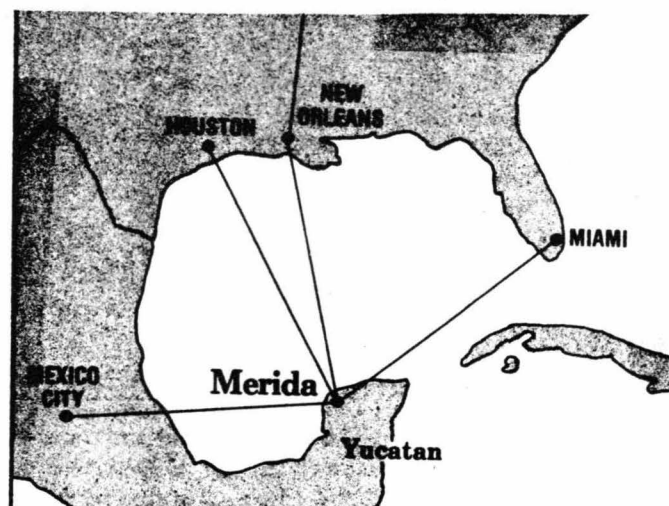
Name _____

Address _____

City _____ State _____ Zip _____

Check enclosed: \$ _____

Mail to: St. Louis Audubon Society, 2109 Briargate Lane, St. Louis, MO.63122



I will be going
with you on this
Tour

Pablo Ribas, the
"Birdman of the
Yucatan" will
be your guide.

See
Page 23



ANYTIME IS PHOTOGRAPHY TIME

Lee F. Mason

DON'T MOTHBALL YOUR CAMERA UNTIL SPING! The avid nature photographer finds that animals have grown long, warm coats for winter. These often set them off against snow backgrounds. Also, many 4-legged subjects can be discovered more easily on snow covered terraine. Birds stand out on bare branches of trees and shrubs. Winter is an excellent time for form and line photography, for monochromatic landscapes, for mood shots.

The wildlife areas, Alton dam, the Mississippi River between Clarksville and Saverton, the Pere Marquette area and along the Illinois River nearby, are all good places to observe and photograph migrating and over-wintering waterfowl and the larger birds of prey.

Right around home, at back yard wild bird feeders, you can readily photograph a long list of resident, transient and migratory birds. Especially photogenic: the red-breasted nuthatch, chickadee, purple finch, titmouse, cardinal, woodpeckers, goldfinch, mockingbird, white-throated and white-crowned sparrows, pine siskin, and don't overlook that most handsome rascal - the bluejay. I zero-in on an open tray of wild bird seed or on a suet feeder with my 135mm lens, position my electronic flash at the calculated distance from the subject, set the lens opening and speed (to synchronize with flash); attach my air-release remote control and run the line through my office window; pour a cup of coffee, and wait for my fine feathered friends to perform. Do try it!

There is more going on in the plant world than most of us suspect. Winter violets and dandelions peek from leaf covers right through the end of the year. As early as late January we have found the harbinger-of-spring (*Erigenia bulbosa*) pushing up under the cover of the forest floor. Early saxifrage (*Saxifraga virginensis*) may be out as early as February. In the open woods that loveliest of all early spring flowers, spring beauty (*Claytonia virginica*) spears out of the woodland debris with deep green leaves and white or delicate pink blossoms before February has bowed out. If you would like to photograph a wild blossom on New Year's Day, the witch hazel should be in bloom.

Photographing falling snow requires a slow shutter speed. Try for dark tree trunks, dark rocks, etc., to contrast with the falling snow. Do not use flash on falling snow - you'll just have great white blobs. Stand in a protected area with the snow falling between you and your main subject.

For snowscapes bright sunlight is a must for best results. The sun should be to the side or front of your camera to emphasize features of the snow. Be sure to use a lens hood to keep the sun's rays out of your lens. Reflected-light exposure meters usually read too high on sunlit snow or ice. Avoid underexposure by giving one more stop than your meter indicates, or set the film speed dial for an electronic eye to one-half the film's actual speed. This will keep the snow from photographing gray and will prevent general underexposure. Use a skyfilter when photographing in color, and a medium-yellow filter when using black and white film.

But whatever else you do, keep your camera active over the winter months. You'll find your photographic "adventures in seeing" are really seasonless; that nature has endless surprises every month of the year.

WANT TO POLISH YOUR PHOTOGRAPHIC SKILLS?

Come join the activities of the Nature Photography Section of the Saint Louis Audubon Society. Indoor meetings are on the first Tuesday of months of October through May (none in January) at 7:45 p.m., Clayton Federal Savings and Loan, Elm and Lockwood, Webster Groves. YOU WILL BE WELCOME!



FLASH.....FLASH.....FLASH

Word has just been received that the Stony Brook - Millstone Watersheds Association of New Jersey is sponsoring a study voyage to the Galapagos Islands, March 10-22, 1981, and invites members of the St. Louis Audubon Society to participate.

The tour will leave from New York City on March 10 and fly to Quito, capital of Ecuador. From there they will fly to Baltra and board the Buccaneer. On March 22, the return flight to New York from Quayaquil.

The leaders will be Thomas C. Southerland, a noted ornithologist, and director of the Farmland Preservation Program at the New Jersey Conservation Foundation. Also, leading will be Arnold E.S. Gussin, Director of the Education Department at the New York Botanical Garden.

Price for the tour is from \$1,895.00 to \$3,295.00, depending on the accommodations desired. In addition, a tax deductible donation of \$200.00 payable to the Stony Brook Association is required, and each participant must pay for transportation to and from New York City.

If you are interested please call St. Louis Audubon Society-Connie Hath-965-8642 or Martin Schweig-361-4226.

JUNIOR AUDUBON NEWS
by Beverly J. Letchworth



ANYTHING GOES

Here's some startling news about the world's birth rate according to statistics in the book, "Sizing Up Science".

3 babies are born per second
180 babies per minute
11,000 babies per hour
260,000 babies per day

And according to Audubon Magazine our world population is growing at such a rate that it is equal to adding a Miami, Florida every week to our world.

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WILDLIFE TRAILS

Step out into your backyard and make a winter food tree for the birds in your neighborhood.

Drop GUMDROPS in honey and roll in shredded coconut. String the gumdrops and hang over the ends of the branches.

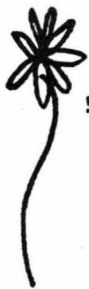
Use half WALNUT SHELLS or half ORANGES or LEMON skins and fill with PEANUT BUTTER AND WILD BIRD SEED and MELTED BEEF SUET. Hang on tree branches with yarn.

String CRANBERRIES, UNSALTED POPCORN and RAISINS and loop from branch to branch.

Roll EVERGREEN CONES in MELTED BEEF SUET and hang with yarn.

String a few chunks of CHEESE and APPLE and DONUTS and throw over the tree branches.

There! Your birds are all set to celebrate with a grand feast!



UPBEAT

! People are beginning to pay attention to protecting wildlife habitats. They are even willing to pay higher prices for commodities in order to protect animals' environments.

However, while they are interested in wildlife such as eagles, mountain lions and crocodiles, they don't seem to care much about saving rare plants.

! Hunting is a subject that people often disagree about. Many people approve of hunting for meat and traditional hunting by Indians and Eskimos. But hunting only for recreation and sport is disapproved.

! North America has ten most endangered species:

DUSKY SEASIDE SPARROW

Number surviving: 13

BLACK-FOOTED FERRET

Number surviving: unknown

LOTUS BLUE BUTTERFLY

Number surviving: unknown

CLAY-LOVING PHACELIA (flower)

Number surviving: 4

SNAIL DARTER

Number surviving: hundreds

KUAUAI (bird)

Number surviving: 2-4

HOUSTON TOAD

Number surviving: 1500

KEMPS RIDLEY SEA TURTLE

Number surviving: hundreds

RED WOLF

Number surviving: unknown

BIRDWING PEARLY MUSSEL

Number surviving: unknown



OFFBEAT

Here are some interesting facts that are fun to know . . .

* The largest single living object on earth is one of the Sequoia pines which grows in California. It is named after General Sherman. At the tree's base the circumference is 102 feet; the outstretched arms of 17 men would be needed to encircle it.

* So much energy is generated by a typical eruption on the surface of the sun that it would be enough to bring 1/3 of the water in the Atlantic Ocean to the boil.

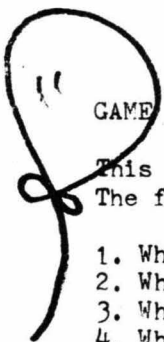
* A queen bee lays her eggs at the rate of one each minute. If she could keep this up for a year, she would lay half a million eggs.

* Swarms of 40,000 million locusts, weighing 80,000 tons have been observed.

* The oldest seeds to have successfully produced a plant are those of an Arctic Lupin found in the Yukon Territory. These seeds are at least 10,000 years old and have been deep frozen and covered by enough insulating material which kept the soil from thawing.

* We think we live on an enormous globe, but on the scale of the Universe, the Earth is a tiny, tiny object. Throw two peanuts onto the earth--it is as if a giant were to throw one earth into the Universe.

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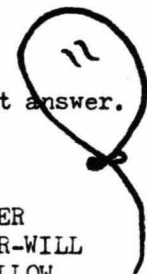


GAME FUN

This is a funny bird quiz. Draw a line from each question to the right answer. The first question and answer are done for you.

1. What did Will's father do when Will misbehaved?
2. What bird is a church dignitary?
3. What bird is well baked?
4. What bird is a good baseball player?
5. What does a candle do when the window is open?
6. What will you never see happen?
7. What bird never goes straight?
8. What do you call William when he's angry?

OVENBIRD
FLYCATCHER
WHIP-POOR-WILL
BARN SWALLOW
TERN
CROSSBILL
FLICKER
CARDINAL



SCHOLARSHIP ANNOUNCEMENT

The St. Louis Audubon Society is awarding several scholarships in nature study to the National Audubon Society's Ecology Camps in Wyoming, Wisconsin, Connecticut and Maine. Both members and non-members of the St. Louis Audubon Society are eligible. Camp registrants must be 18 years of age or older. Application for the scholarship and information about the Camps may be obtained from Scholarship Chairman, Gary Shackelford, 13 Scarsdale, St. Louis, Missouri 63117.

Deadline for return of the application is January 31, 1981. All applicants will be notified of the awards, which will be made by February 15, 1981.

WISCONSIN CAMP

1980 winner

Barbara Gitcho

When a person reaches her thirties, never before having any camp experience, she has to have some apprehension about an adventure such as Audubon Camp. Though interested in birding, I certainly never claimed to be an expert. Would I feel out of place? Although I never doubted for a minute that it would be a worthwhile experience, the element of the unknown made me a trifle on edge.

With these feelings, I arrived at Hunt Hill, the Wisconsin Camp the end of July, the first one-week session of the summer. When I was greeted with smiles, a helping hand and a cool soft drink, I began to relax. The session was full, which means I was one of fifty four campers. After a delicious dinner (which was typical of every meal), we had orientation and introductions. The staff couldn't have been more cordial yet thorough. Even the weather was co-operative, in fact perfect.

The schedules were posted: breakfast, morning field trip; lunch; afternoon field trip; supper followed by the evening lecture. They DO keep one busy. The field trips included weather, birding, limnology, a trip to a bog, Wisconsin geology and canoeing.

As the week went on, there was not one class in which I didn't both learn and enjoy. Even though I knew little or nothing about some of the topics, such as limnology, no one made me feel uneasy.

Friday, our last full day, a beautiful culminating program was delivered by the staff in one of the most picturesque areas of the woods. Saturday morning came all too soon. The campers had shared many great experiences in this short week and now we had to bid, not only our new friends but the breath-taking site, a fond farewell. I returned to my hectic routine world, knowing my idyllic week would always remain with me through useful knowledge, snapshots and memories.

The huge tires barked as the airliner touched pavement at the Portland, Maine jetport. Audubon Camp was just two hours drive away.

Here I would begin a two week scholarship session sponsored by the Saint Louis Audubon Society.

Birding around the Gateway City is soon forgotten as great black backed gulls fly over the Puffin III (one of the two camp boats) during the short cruise to Hog Island, our destination. Warm greetings from the Audubon instructors and wardens immediately make the fifty-five campers, twenty from England and Wales, feel at ease.

The local industry is very apparent with multi-colored buoys scattered throughout Muscongus Bay and seaworthy boats noisily moving to retrieve their respective colors. Wenching the traps from the bottom of to harvest the delicious Maine lobster continues during all daylight hours.

Cormorants and terns patrol the surrounding waters of the three hundred acre wildlife sanctuary while a class (one of four color coded groups) learns in depth of the geological forms of the rugged north Atlantic coast, using same for the class room. The programs emphasize the inter-relationship of wildlife, plants, soil and water and the need for their conservation.

A visit to the Climax Spruce Island reveals many interesting forms plus snowshoe hares dressed in their brown summer coats. This mid-westerner was fascinated by the resident procupine, but the English spent hours waiting in the dark at the trash receptacles trying to torch (flashlight) the masked racoon. It seems there are as many a racoon in England as there are porcupines in Missouri.

While one of the highly qualified and enthusiastic instructors introduces the Purple Group to InterTidal Zone Marine life, female and immature eiders dove for mussels in the nearby fifty-four degree ocean. The adult male common eiders remained by the security of off-shore islands during this, their flightless moult period.

Black Fullemots, Scoters and Harbor seals are observed throughout the all-day boat trip. The Guillemots flight style being not unlike the bumble bee like motion of our Rudy duck. As the Puffin III cruises past hundreds of standing cormorants, a pair of great cormorants are sighted among the double crested.

Lunch stop is at Harbor Island. Here Artic terns often come to feed, their flight feathers all being semi-transparent against the bright sun and bills blood red. After lunch our diesel powered craft circles Eastern Egg and Western Egg Rock Islands, named from their past records as great places to gather eggs.

A pair of four foot harbor porpoise break water across our bow, the boat now cutting a path back toward Hog Island and a warm supper served family style.

Hog Island sanctuary also serves as base of operation for the well known Puffin Transplant Project conducted eight miles away on Eastern Egg Rock Island. There, one hundred puffin chicks are annually transplanted from Canada. They are kept under twenty-four hour a day vigilance by two naturalists, until all have fledged. The eight year old project is showing positive signs of success. During our cruise around the island, three puffins were sighted; one wearing a yellow leg band indicating it to be a 1976 graduate. Seeing puffins for the first time is quite exciting, but meeting the individual rugged naturalists who work the project is equally a thrill.

The hands on program given at the Audubon Ecology Camp in Maine instill an appreciation of the environment as a single unit and leave a concern for its stewardship.

Sincere thanks is extended to the members and Board of the Saint Louis Audubon Society, your scholarship award was well-utilized.

ECOLOGY CAMP IN THE WEST-WYOMING

1980 winner

Barbara Sandhagen

Last April, I was most excited to learn from Mr. Gary Shackelford, that the St. Louis Audubon Society had selected me to be a recipient of an Audubon Summer Camp Scholarship to the Western Camp in Wyoming. My experience at the Camp was most enjoyable and as a result, has greatly influenced my decision to further pursue outdoor or environmental studies.

The camp is nestled in the beautiful Wind River Mountains of Wyoming, in a unique glacial valley, we came to know was Torrey Valley. Torrey Valley has been and is still being carved by rushing and very cold Torrey Creek. All of this, plus the abundant wildlife of Torrey Valley and Torrey Creek created quite an outdoor classroom!

Torrey Valley is unique in the number of habitats and ecosystems available for study. Variations include different adaptations of plants to the semi-arid environment of the south facing slope of Torrey Valley, the riparian life of Torrey Creek and the sub-alpine habitats of the mountains.

The two week camp experience provided 10 hours of separate field instruction in Ecology, Ecological Living, Invertebrates, Aquatic Life, Botany and Earth Science to groups no larger than ten. Each of these specialties was presented in a form that could be easily adapted to a study of habitats and ecosystems anywhere. Time was also provided for discussions with instructors and other campers.

One of the most thrilling moments of my camp experience was to view a Dipper's nest during ornithology instruction. The dipper is a bird that builds its nest near waterfalls and actually "flies" underwater. Viewing the nest was very different for me as each one of us had to be supported one at a time by our instructor, Chuck Schneebeck, at the edge of a slippery cliff 50 feet above roaring Torrey Falls.

I also remember "catching" insects on the only cold and very windy morning we had during the session. I never realized how scarce these little creatures become until I tried beating them off their bushes with a net and catching them with a jar and lid. We did end up with a few to study, but not as many as other groups on a calmer day.

During Aquatic Life with Peggy Abbott we were to don old sneakers and squish around in a slow moving part of Torrey Creek to capture some water life for study. Even with wet and soggy shoes, I found dragonfly nymphs and caddisfly larvae to be very intriguing under a microscope.

Another highlight came during Ecology class with Bob Clover. This class dealt mostly with the study of mammals. We learned to look for tracks of animals, molted fur and signs of foraging. To my delight, that day we sighted a moose cow, a bighorn ewe and a coyote.

The physical factors affecting the environment were brought out in Earth Science instruction and in Botany class. Concepts learned in these classes, plus the others, were presented to provide a greater understanding of the ecological inter-relationships between living and non-living aspects of our environment.

The study of man's impact upon these interrelationships and on the intricacies of nature's balance took place in Ecological Living with Don Nelson. These classes were largely discussion, but perhaps the biggest eye-opener for me.

In conclusion, as a teacher, responsible for the molding of so many different personalities and minds, I will help my students to become more aware of the interrelationships I learned about, the fragile balance of nature and to help them realize that everything they do and decide has and will have a great and dangerous impact upon this balance. This, by far, is the most valuable result of my experience at the Audubon Ecology Camp in the West.

AUDUBON CAMP IN WISCONSIN

1980 winners Frances & Fred Appleby

Thanks to the St. Louis Audubon Society, we spent a week at the Audubon Camp in Wisconsin. Looking back, it's hard for us to imagine what all can be squeezed into one week. We arrived at Hunt Hill Sanctuary near Sarona, Wisconsin on Sunday afternoon and were greeted by staff members armed with schedules, name tags, room assignments and a map of the trails. Married couples had rooms; single people shared one room dormitories. All ate in the common dining room and took turns "hopping tables" (Audubon Camps are set up to help us appreciate and learn about nature, but everyone appreciated the food as well. The Wisconsin Supper of bratwurst, sauerkraut, cheese, sweet corn and watermelon, and the candlelight dinner on the last night of camp were especially memorable.

We were broken up into four groups for our field trips and excursions; each person stayed in the same group all week. There's so much to tell- the short hike to the meadow to find medicinal plants and wild edibles with Marv, the walk in the bog to find larch trees and sundew plants and all the magic which Gordy finds there. There were the daily weather reports and predictions. One afternoon we spent on the Potamageton, a floating limnology lab on which we did tests of temperature, turbidity, PH and vegetation in the lake. There was, of course, a birdwalk, but it was a drizzly morning and the birds were hiding. We only heard them. And then we floated - paddled the Nemakagan River after using a seine and net to catch crawdads, dragonfly nymphs, frogs, leach and a catfish. The Wisconsin landscape was shaped by glaciers and on a field trip we found the granite boulders (erratics) that had been dragged along and left behind, the glacial till now being mined in gravel pits, the black farmland marked here and there hummocks and holes.

We learned a great deal during our free time. We built two bird houses in the workshop above the dining room; hiked the trail to find all colors of mushroom and stayed up late to see the Perseids meteor shower. The "free time" highlight was a day trip which had even staff member, Bob, amazed. A group of campers and Bob saw egrets, cormorants, flycatchers, great blue heron, a bald eagle. The peak of the trip was seeing two sand-hill cranes, then watching a marsh hawk show off for a length of time.

The week at Hunt Hill Sanctuary was filled with many hours of fellowship and interaction with others from all parts of the United States and even Canada. Camaraderie and friendships quickly developed and a closeness with the staff members made the group almost a family. It was this closeness that gave all other aspects of the camp a very special meaning.

It was a week we'll always remember. Thank you, St. Louis Audubon Society!

JANUARY 1981						
SUN	MON	TUES	WED	THUR	FRI	SAT
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	<u>16</u>	<u>17</u>
18	19	<u>20</u>	21	22	23	24
25	26	27	28	29	30	31

MARCH 1981						
SUN	MON	TUES	WED	THUR	FRI	SAT
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	<u>17</u>	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

FEBRUARY 1981						
SUN	MON	TUES	WED	THUR	FRI	SAT
1	2	<u>3</u>	4	5	6	7
8	9	10	11	12	13	14
15	16	<u>17</u>	18	19	<u>20</u>	21
22	23	24	25	26	27	28

DATES TO REMEMBER.....

Wildlife Films.....January 16 and February 20
 Eagle Count.....January 17
 Board meetings.....Third Tuesday of each month (none in December)
 Photography Section...First Tuesday of each month (none in January)
 TOUR TO MERIDA YUCATAN....leaves March 17
 Tour to Mingodate to be announced

Audubon group to combine "birding" with Mayan ruins

Pablo Ribas, manager of our Mexican operations, is a walking repository about everything in Yucatan—from archeology to zoology. He also has the unique distinction of having served as a corporal in the U.S. Marine Corps and a captain in the Mexican cavalry (in the latter service he was shot twice while apprehending marijuana smugglers). Add to this his fluency in languages—English, French, Italian, German—in addition to Spanish, and you may be witnessing the modern renaissance man.

His knowledge of ornithology will really be put to the test in mid-March when he acts as guide and commentator for a visiting group of Audubon Society members from Missouri.

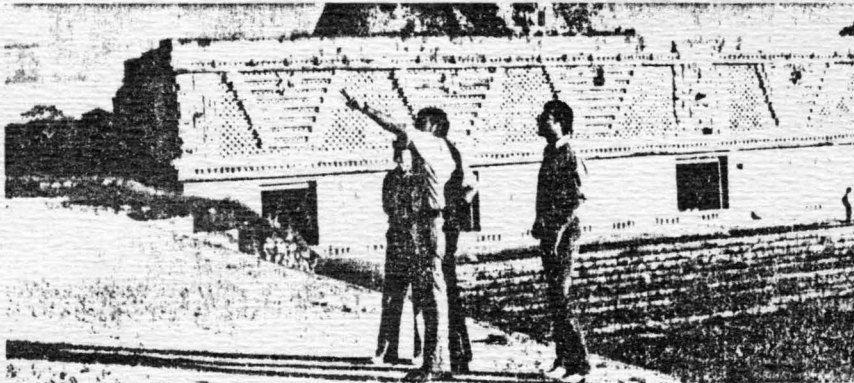
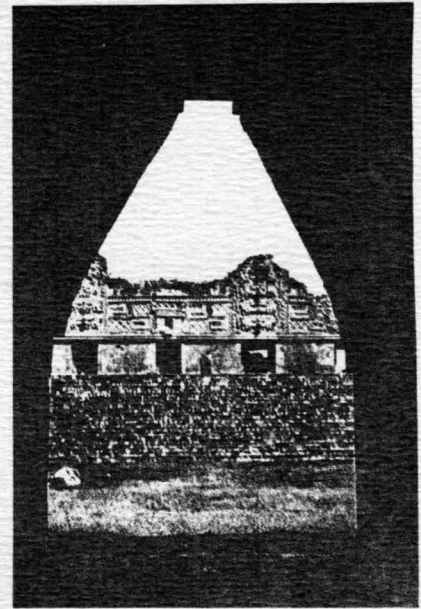
No problem. He's toured bird-watchers before. Nor does he find any incompatibility in the fact that he is also an outdoor sportsman and a crack duck shooter.



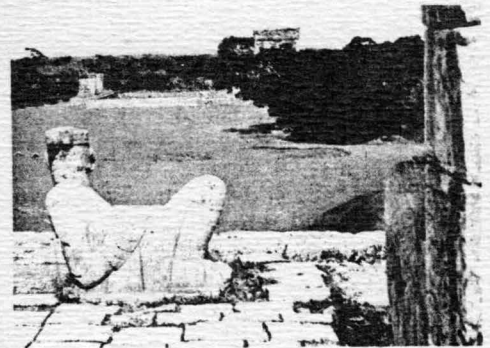
Pablo Ribas
"Birdman of Yucatan"

He'll combine "birding" with tours of the spectacular Mayan ruins at Uxmal and Chichen-Itza.

What does he know about ancient ruins? Well, he has a degree in archeology and is a government-licensed guide.



Ribas points out a detail of a Mayan temple at Uxmal.



Typical Chac-Mool Statue.

Mérida, Yucatán, México.

Mérida, Yucatán, México.



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Happy New Year to You



OUR WISH FOR YOU

Pure Water

Clean Air

Strong Trees

Healthy Animals

Loving People

Officers, Board Members

and the Editor

Saint Louis Audubon Society